

Amendments to the Claims:

The listing of claims below will replace all prior versions and listings of claims in this application.

Listing of Claims:

1. (Currently Amended) In a client system, a method of operation comprising
providing an advertisement publisher with a profile of the user of client system at a ~~predetermined~~ time prior to streaming of a program;
asynchronously caching, at a client cache, a plurality of advertisements of various time lengths contemporaneous with streaming of a program; and
causing one or more of said cached advertisements to be synchronously rendered during an advertisement time slot of a streaming program, replacing advertisements, if any, included in the streaming program for the advertisement time slot.
2. (Previously Presented) The method of claim 1, wherein said caching of a plurality of advertisements of various time lengths comprises obtaining an advertisement targeted at said profile of the user of client system.
3. (Original) The method of claim 2, wherein said profile of the user of client system comprises selected ones of a plurality of demographic and interest characteristics of the user.
4. (Original) The method of claim 2, wherein said profile of the user of client system comprises geographic information of the user.
5. (Original) The method of claim 2, wherein the method further comprises receiving said advertisements of various time lengths from the advertisement publisher.
6. (Original) The method of claim 2, wherein the method further comprises receiving locations of said advertisements of various time lengths from the advertisement publisher, and retrieving said advertisements of various time lengths from said locations.

7. (Currently Amended) In a client system, a method of operation comprising:

providing an advertisement publisher with a profile of the user of client system at a ~~predetermined~~ time prior to streaming of a program;

asynchronously retrieving a plurality of advertisements in an adaptive manner to minimize interference with a discernable quality, from the client system's perspective, of the contemporaneous receiving and rendering of said streaming program on said client system ~~that is consistent with a rendering quality objective for contemporaneously receiving and rendering said streaming program on said client system;~~

asynchronously caching, at a client cache, said plurality of advertisements of various time lengths contemporaneous with streaming of said streaming program; and

causing one or more of said cached advertisements to be synchronously rendered during an advertisement time slot of a streaming program, replacing advertisements, if any, included in the streaming program for the advertisement time slot.

8. (Currently Amended) The method of claim 7, wherein said adaptive retrieving comprises monitoring at least one of a late arrival rate, a loss rate, and a resend rate of data packets associated with said streaming program to determine whether asynchronously retrieving said plurality of advertisements is interfering with said discernable quality. ~~one or more performance metrics that are indicative of whether the client system is meeting said rendering quality objective for receiving and rendering said streaming program.~~

9. (Currently Amended) The method of claim 7, wherein said adaptive retrieving comprises adjusting a download rate at which said plurality of advertisements are asynchronously retrieved. ~~at least one of an operational bit rate and an operational pulse rate.~~

10. (Original) The method of claim 1, wherein said caching of a plurality of advertisements of various time lengths comprises caching at least a selected one of 30 second advertisements and 60 second advertisements.

11. (Original) The method of claim 1, wherein the method further comprises receiving a notification of the advertisement time slot, including the advertisement time slot's time length.

12. (Original) The method of claim 11, wherein said receiving of a notification of the advertisement time slot comprises receiving the notification from a player of the client system receiving and rendering the streaming program.

13. (Previously Presented) The method of claim 11, wherein said receiving of a notification of the advertisement time slot comprises receiving the notification from an operating system service receiving a streaming of event notifications companion to the streaming program on behalf of a player of the client system.

14. (Original) The method of claim 11, wherein said receiving of a notification of the advertisement time slot comprises receiving the notification from a broadcaster of the streaming program.

15. (Previously Presented) The method of claim 1, wherein said causing of one or more of said cached advertisements to be synchronously rendered during the advertisement time slot comprises selecting one or more of said cached advertisements with their combined total time length at least equal to said advertisement time slot's time length.

16. (Previously Presented) The method of claim 15, wherein said causing of one or more of said cached advertisements to be synchronously rendered during the advertisement time slot further comprises blocking output of the streaming program for the duration of said advertisement time slot, and rendering the selected advertisements instead.

17. (Original) The method of claim 1, wherein the method further comprises notifying a publisher of an advertisement when rendering commences on the client system for the advertisement.

18. (Original) The method of claim 1, wherein the method further comprises notifying a publisher of an advertisement when rendering ceases on the client system for the advertisement.

19. (Original) The method of claim 1, wherein the streaming program is a streaming audio program, and the advertisements are audio advertisements.

20. (Original) The method of claim 1, wherein the streaming program is a streaming radio program, and the advertisements are audio advertisements.

21. (Original) The method of claim 1, wherein the streaming program is a streaming multimedia program, and the advertisements are multi-media advertisements.

22. (Original) The method of claim 1, wherein the streaming program is a streaming television program, and the advertisements are television advertisements.

23. (Original) The method of claim 1, wherein the method further comprises receiving the streaming program from a broadcaster and rendering the streaming program on said client system.

24. (Original) The method of claim 23, wherein the method further comprises receiving a stream of event notifications companion to the streaming program from the broadcaster and relaying notifications of advertisement time slots to an advertisement module responsible for performing said caching of advertisements and said causing of advertisements to be rendered.

25. (Currently Amended) An apparatus comprising:

storage medium having stored therein programming instructions designed to enable the apparatus to

provide an advertisement publisher with a profile of the user of client system at a ~~predetermined~~ time prior to streaming of a program;

asynchronously cache a plurality of advertisements of various time lengths at a local cache contemporaneous with streaming of a program, and
synchronously render one or more of said cached advertisements during an advertisement time slot of a streaming program, to effectively substitute for advertisements, if any, included in said streaming program for rendering during said advertisement time slot; and
at least one processor coupled with the storage medium to execute the programming instructions.

26. (Previously Presented) The apparatus of claim 25, wherein said programming instructions are designed to enable the apparatus to include as part of the performance of said caching of a plurality of advertisements of various time lengths, obtaining an advertisement targeted at said profile of the user of client system.

27. (Original) The apparatus of claim 26, wherein said profile of the user of client system comprises selected ones of a plurality of demographic and interest characteristics of the user.

28. (Original) The apparatus of claim 26, wherein said profile of the user of client system comprises geographic information of the user.

29. (Original) The apparatus of claim 26, wherein said programming instructions are designed to enable the apparatus to receive said advertisements of various time lengths from the advertisement publisher.

30. (Original) The apparatus of claim 26, wherein said programming instructions are designed to enable the apparatus to receive locations of said advertisements of various time lengths from the advertisement publisher, and retrieve said advertisements of various time lengths from said locations.

31. (Currently Amended) An apparatus comprising:

storage medium having stored therein programming instructions designed to enable the apparatus to

provide an advertisement publisher with a profile of the user of client system at a ~~predetermined~~ time prior to streaming of a program;

asynchronously retrieve advertisements in an adaptive manner to minimize interference with a discernable quality, from the client system's perspective, of the contemporaneous receiving and rendering of said streaming program on said client system ~~that is consistent with a rendering quality objective for contemporaneously receiving and rendering said streaming program on said client system;~~

asynchronously cache said advertisements of various time lengths at a local cache contemporaneous with streaming of a program; and

synchronously render one or more of said cached advertisements during an advertisement time slot of a streaming program, to effectively substitute for advertisements, if any, included in said streaming program for rendering during said advertisement time slot; and

at least one processor coupled with the storage medium to execute the programming instructions.

32. (Currently Amended) The apparatus of claim 31, wherein said programming instructions are designed to enable the apparatus to include as part of the performance of said adaptive retrieving, monitoring at least one of a late arrival rate, a loss rate, and a resend rate of data packets associated with said streaming program to determine whether asynchronously retrieving said plurality of advertisements is interfering with said discernable quality. ~~of one or more performance metrics that are indicative of whether the client system is meeting said rendering quality objective for receiving and rendering said streaming program.~~

33. (Currently Amended) The apparatus of claim 31, wherein said programming instructions are designed to enable the apparatus to include as part of the performance of said adaptive retrieving, adjustment of a download rate at which said plurality of advertisements are asynchronously retrieved. ~~at least one of an operational bit rate, and an operational pulse rate.~~

34. (Original) The apparatus of claim 25, wherein said programming instructions are designed to enable the apparatus to include as part of the performance of said caching of a plurality of advertisements of various time lengths, caching of at least a selected one of 30 seconds advertisements and 60 seconds advertisements.

35. (Original) The apparatus of claim 25, wherein said programming instructions are further designed to enable the apparatus to receive a notification of the advertisement time slot, including the advertisement time slot's time length.

36. (Original) The apparatus of claim 35, wherein said programming instructions are designed to enable the apparatus to include as part of the performance of said receiving of a notification of the advertisement time slot, by having an advertisement module receives the notification from a player of the apparatus receiving and rendering the streaming program.

37. (Original) The apparatus of claim 35, wherein said programming instructions are designed to enable the apparatus to include as part of the performance of said receiving of a notification of the advertisement time slot, by having an advertisement module receive the notification from an operating system service, of the apparatus receiving a streaming of event notifications companion to the streaming program on behalf of a player of the streaming program of the apparatus.

38. (Original) The apparatus of claim 35, wherein said programming instructions are designed to enable the apparatus to include as part of the performance of said receiving of a notification of the advertisement time slot, receipt of the notification from a broadcaster of the streaming program.

39. (Previously Presented) The apparatus of claim 25, wherein said programming instructions are designed to enable the apparatus to include as part of the performance of said synchronous rendering of one or more of said cached advertisements during the

advertisement time slot, selection of one or more of said cached advertisements with their combined total time length at least equal to said advertisement time slot's time length.

40. (Original) The apparatus of claim 39, wherein said programming instructions are designed to enable the apparatus to include as part of the performance of said synchronously rendering of one or more of said cached advertisements during the advertisement time slot, blocking of output of the streaming program for the duration of said advertisement time slot, and rendering of the selected advertisements instead.

41. (Original) The apparatus of claim 25, wherein said programming instructions are further designed to enable the apparatus to notify a publisher of an advertisement when rendering commences on the client system for the advertisement.

42. (Original) The apparatus of claim 25, wherein said programming instructions are designed to enable the apparatus to notify a publisher of an advertisement when rendering ceases on the client system for the advertisement.

43. (Original) The apparatus of claim 25, wherein the streaming program is a streaming audio program, and the advertisements are audio advertisements.

44. (Original) The apparatus of claim 25, wherein the streaming program is a streaming radio program, and the advertisements are audio advertisements.

45. (Original) The apparatus of claim 25, wherein the streaming program is a streaming multi-media program, and the advertisements are multi-media advertisements.

46. (Original) The apparatus of claim 25, wherein the streaming program is a streaming television program, and the advertisements are television advertisements.

47. (Original) The apparatus of claim 25, wherein said programming instructions are designed to enable the apparatus to receive the streaming program from a broadcaster and render the streaming program on said apparatus.

48. (Original) The apparatus of claim 47, wherein said programming instructions are designed to enable the apparatus to receive a stream of event notifications companion to the streaming program from the broadcaster and relaying notifications of advertisement time slots to an advertisement module of the apparatus responsible for performing said caching and synchronous rendering of advertisements.

49. (Currently Amended) A system comprising:

- first server providing at least one of advertisements of various time lengths, and locations of advertisements of various time lengths to a client;

- second server providing a streaming program to said client, said streaming program having one or more advertisement time slots; and

- said client coupled with the first and second servers to

- provide an advertisement publisher with a profile of a user of said client at a ~~predetermined~~ time prior to streaming of a program;

- asynchronously cache said advertisements of various time lengths at a client cache contemporaneous with streaming of a program, and

- synchronously render one or more of said cached advertisements during an advertisement time slot to effectively substitute for advertisements, if any, included in said streaming program for rendering during said advertisement time slot.

50. (Currently Amended) A system comprising:

- first server providing at least one of advertisements of various time lengths, and locations of advertisements of various time lengths to a client;

- second server providing a streaming program to said client, said streaming program having one or more advertisement time slots; and

- said client coupled with the first and second servers to

asynchronously retrieve advertisements of various time lengths in an adaptive manner to minimize interference with a discernable quality, from the client system's perspective, of the contemporaneous receiving and rendering of said streaming program on said client system ~~that is consistent with a rendering quality objective for receiving and rendering said streaming program on said client;~~

provide an advertisement publisher with a profile of the user of client system at a ~~predetermined~~ time prior to streaming of a program;

asynchronously cache said advertisements of various time lengths at a client cache contemporaneous with streaming of a program, and

synchronously render one or more of said cached advertisements during an advertisement time slot to effectively substitute for advertisements, if any, included in said streaming program for rendering during said advertisement time slot.

51. (Currently Amended) The system of claim 50, wherein said client is equipped to monitor at least one of a late arrival rate, a loss rate, and a resend rate of data packets associated with said streaming program to determine whether asynchronously retrieving said plurality of advertisements is interfering with said discernable quality. ~~one or more performance metrics that are indicative of whether the client system is meeting said rendering quality objective for receiving and rendering said streaming program.~~

52. (Currently Amended) The system of claim 50, wherein said client is equipped to adjust a download rate at which said plurality of advertisements are asynchronously retrieved. ~~at least one of an operational bit rate, and an operational pulse rate.~~

53. (Original) The system of claim 49, wherein said client is equipped to provide a third server coupled with the client, a user profile of a user of the client.

54. (Original) The system of claim 49, wherein said client is equipped to notify a third server when rendering commences on the client for an advertisement.

55. (Original) The system of claim 49, wherein said client is equipped to notify a third server when rendering ceases on the client for an advertisement.